

**APPENDIX G**

**CATEGORICAL EXCLUSION FOR  
CONSTRUCTION/RELOCATION OF ACCESS ROAD AT  
OAK RIDGE NATIONAL LABORATORY  
OAK RIDGE, TENNESSEE**

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**CATEGORICAL EXCLUSION FOR CONSTRUCTION/RELOCATION  
OF ACCESS ROAD AT OAK RIDGE NATIONAL LABORATORY,  
OAK RIDGE, TENNESSEE**

**PROPOSED ACTION:** Upgrade/relocate access road at the Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee.

**LOCATION:** An existing road is located in Melton Valley of ORNL at the U.S. Department of Energy (DOE) Oak Ridge Reservation in Oak Ridge, Tennessee. The road begins near the south end of White Oak Dam on the east side of state Route 95 just north of the Clinch River and extends parallel to the Melton Valley Branch of White Oak Creek to, and beyond, the Melton Valley Storage Tank Facility in Roane County, Tennessee.

**DESCRIPTION OF PROPOSED ACTION:** The DOE Oak Ridge Operations (ORO) Office proposes to upgrade an existing access road by providing a paved road with two 3.6-m (12-ft) lanes, a shoulder of undetermined width, and possibly a guardrail. Currently, the road is a single lane gravel road that is badly eroded and in need of repair. A portion of the road may require relocation from the existing roadway to comply with the policy for establishing minimum "sight distance" at intersections ("A Policy on Geometric Design of Highways and Streets 1990," published by the American Association of State Highway and Transportation Officials). According to this policy, the minimum sight distance for the road will be approximately 170 m (550 ft). The primary purpose of this action is to provide a competent road for continued vehicular traffic and to allow access by transport trucks and emergency use vehicles. Access to monitoring wells located along the existing road and emergency egress from Melton Valley will be maintained at all times during construction.

The proposed activity could involve the road for a distance of approximately 2 km (1.25 mile). The proposed action would involve excavation of approximately 19,700–33,800 m<sup>3</sup> (25,700–44,200 yd<sup>3</sup>) of soil, depending upon where the new junction of the road with state Route 95 is located. Exact route and associated volume of excavated soil will be determined as part of the roadway design.

Ancillary activities associated with the road upgrade will include (1) installation of security fencing as needed to restrict access to areas of ORNL, (2) plugging and abandonment or modification of existing monitoring wells located in the path of the upgraded road (an action also covered under GEN CX-292), (3) upgrade of existing culverts as necessary and addition of new culverts for stormwater flow to match the stormflow generated by a 25-year storm, (4) replacement of a security gate where the road joins state Route 95 and installation of a second gate at the other end of the upgraded road, and (5) installation of a metered water tie-in to an existing water line.

Wastes generated during this action will be primarily Resource Conservation and Recovery Act of 1976 Subtitle D (e.g., nonhazardous) solid wastes. All wastes will be disposed of in accordance with applicable regulations. No liquid wastes will be generated, stored, or disposed of as part of the proposed action. Air emissions will include emissions from burning vegetation after clearing the widened road corridor, vehicular emissions, and emissions from the paving process. All will be within regulatory limits.

Two homesteads located near the existing road were surveyed to determine if they were eligible for listing as historic properties<sup>1</sup>. One of the homesteads, the Jenkins site was determined to be eligible for listing as a historic property. Neither site will be disturbed as a result of this action and no adverse effects are anticipated. The only potentially sensitive resource identified near the road was White Oak Creek, which is north and downgradient from the site. A runoff and erosion control plan will be prepared, approved, and implemented to protect the creek from erosion and runoff during implementation of the action.

The Tennessee Department of Transportation will review and approve designs for the intersection of the road and state Route 95 to ensure that it meets requirements for traffic safety. An erosion control plan for construction activities will be prepared to satisfy requirements under *Rules of the Tennessee Department of Environment and Conservation*, Chapter 1200-4-10-.05, to minimize any potential impacts from erosion caused by stormwater flow.

This project will pose no threat of significant individual or cumulative environmental effects.

**REGULATORY CONSIDERATIONS:** The proposed action will be conducted under DOE authorities pursuant to the Atomic Energy Act of 1954 and will be consistent with current and future actions at the site. The proposed action meets the eligibility criteria for conditions that are integral elements of actions eligible for categorical exclusion (CX) as stated in 10 *Code of Federal Regulations* (CFR) 1021:

1. The proposed action will not threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders.
2. The proposed action will not require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions.
3. The proposed action will not disturb hazardous substances, pollutants, contaminants or Comprehensive Environmental Response, Compensation, and Liability Act of 1980-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.
4. The proposed action will not adversely affect environmentally sensitive resources including: archaeological or historic sites; potential habitats of threatened or endangered species; floodplains, wetlands; areas having special designations such as federally or state-designated wilderness areas, national parks, natural landmarks, wild and scenic rivers, wildlife sanctuaries, prime agricultural lands, special sources of water such as sole source aquifers, tundra, coral reefs, or rain forests. The proposed action would occur largely in a previously disturbed/developed area, although some second growth upland habitat would likely also be disturbed. A survey for sensitive resources will be conducted along the road route once it has been more

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<sup>1</sup> Carver, M. And M. Slater. 1994. *Architectural/Historical Assessment of the Oak Ridge National Laboratory, Oak Ridge Reservation, Anderson and Roane Counties, Tennessee*. ORNL/M-3244, ORNL, Oak Ridge, Tennessee.

clearly identified and prior to disturbance of any vegetation. Appropriate mitigation measures will be taken in the event that any sensitive resources are identified.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, and the proposal is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

The estimated cost for this action is approximately \$1 - 3 million, and it will take approximately 9 months to 1 year to complete.

**CX TO BE APPLIED:** DOE National Environmental Policy Act of 1969 (NEPA) Implementing Procedures, 10 CFR 1021, Subpart D, Appendix B, actions that "Normally Do Not Require EAs or EISs."

B.1.13, "Construction, acquisition, and relocation of onsite pathways and short access roads and railroads."

B.1.11, "Installation of fencing, including that for border marking, that will not adversely affect wildlife movements or surface water flow."

B.1.15, "Siting, construction (or modification), and operation of support buildings and structures ..."

I have concluded that the proposed action meets the requirements for the CX referenced above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

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Gary Riner  
DOE-ORO Program Manager

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Date

Based upon my review and recommendations of the DOE ORO Program Manager, I have determined that the proposed action is categorically excluded from further NEPA documentation and review.

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David Allan  
DOE-ORO NEPA Compliance Officer

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Date

**Tolbert, Wayne W. (Oak Ridge)**

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**From:** Cahill, William J [CahillWJ@oro.doe.gov]  
**Sent:** Monday, April 03, 2000 10:19 AM  
**To:** 'wayne.w.tolbert@saic.com'  
**Subject:** FW: CX for Melton Valley Access Road Repair and Upgrade

**Importance:** High



MVSTCXRE.WPD

> -----Original Message-----

> From: Elmore, James L  
> Sent: Monday, April 03, 2000 10:18 AM  
> To: Cahill, William J  
> Subject: FW: CX for Melton Valley Access Road Repair and Upgrade  
> Importance: High

>  
> Bill,  
>  
> Below is the CX for the access road. It was approved by E-mail.

>  
> Jim

> -----Original Message-----

> From: Allen, David R  
> Sent: Tuesday, November 24, 1998 11:44 AM  
> To: Kopotic, James D  
> Cc: Elmore, James L  
> Subject: FW: CX for Melton Valley Access Road Repair and Upgrade  
> Importance: High

>  
> Your cx is approved.

>  
> David A.

>  
> -----Original Message-----

> From: Elmore, James L  
> Sent: Tuesday, November 24, 1998 10:04 AM  
> To: Allen, David R  
> Cc: Moore, Ray T  
> Subject: FW: CX for Melton Valley Access Road Repair and Upgrade  
> Importance: High

>  
> Dave,  
>  
> This CX looks OK to me. I told them we could approve it over e-mail.

>  
> Jim

>  
> -----Original Message-----

> From: Kopotic, James D  
> Sent: Tuesday, November 24, 1998 9:35 AM  
> To: Allen, David R; Elmore, James L  
> Cc: Riner, Gary; 'anne.dickie@jacobs.com'  
> Subject: FW: CX for Melton Valley Access Road Repair and Upgrade  
> Importance: High

>



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February 16, 1999

Mr. Billy E. Reid, Jr.  
Project Manager  
AVISCO, Inc.  
100 Tulsa Rd., Suite 28  
Oak Ridge, TN 37830

**SUBJECT: Report For Rare Plant Survey Proposed Melton Valley Access Road**

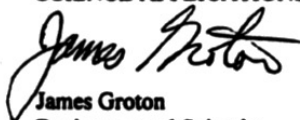
Dear Mr. Reid:

On Wednesday February 10, 1999, Maureen Cunningham, a botanist, and Jimmy Groton, an environmental scientist, from Science Applications International Corporation (SAIC) performed a rare plant species survey for the proposed Melton Valley Access Road, which runs from Highway 95 to the Melton Valley Storage Tank Facility on the Oak Ridge Reservation (ORR). During the survey no federal or state listed endangered or threatened plant species were observed in the proposed roadway corridor. A state plant species of special concern, Pursh's wild-petunia (*Ruellia purshiana*) has been observed in what is known as Oak Ridge National Laboratory (ORNL) Natural Area 56 in the extreme western end of the proposed roadway near the proposed intersection with State Route (SR) 95. Approximately one acre of potential Pursh's wild-petunia habitat would be impacted by the current alignment of the proposed Melton Valley Access Road. Although DOE is not specifically obligated to consider state-listed species, it has generally been DOE policy in the past to avoid actions that would impact state-listed species.

Since this survey was unavoidably conducted in the middle of February when most plants are dormant, a survey during the growing season would better enable us to identify, report, comment on, and make recommendations on avoiding disturbance to sensitive species. Please do not hesitate to call us for further clarifications on this report.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

  
James Groton  
Environmental Scientist

800 Oak Ridge Turnpike, P.O. Box 2502, Oak Ridge, Tennessee 37831 • (423) 482-3628 • Fax: (423) 482-7257  
Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson

### Report For Rare Plant Survey Proposed Melton Valley Access Road

On Wednesday February 10, 1999, Maureen Cunningham, a botanist, and Jimmy Groton, an environmental scientist, from Science Applications International Corporation (SAIC) performed a rare plant species survey for the proposed Melton Valley Access Road, which runs from Highway 95 to the Melton Valley Storage Tank Facility on the Oak Ridge Reservation (ORR). During the survey no federal or state listed endangered or threatened plant species were observed in the proposed roadway corridor. A state plant species of special concern, Pursh's wild-petunia (*Ruellia purshiana*) has been observed in the extreme western end of the proposed roadway in the area around the proposed intersection of the proposed Melton Valley Access Road with State Route (SR) 95. This population was first identified, described, and documented by Dr. Larry Pounds, a botanist working for the Oak Ridge National Laboratory (ORNL) Environmental Sciences Division. The area where the plant was found is known as ORNL Natural Area 56. It is not known whether other populations of Pursh's wild-petunia exist at ORNL or elsewhere on the ORR. Although DOE is not specifically obligated to consider state-listed species, in the past DOE has generally tried to avoid actions that would impact state-listed species.

The survey area consisted of a linear strip approximately 50-ft wide and 6,000 ft in length (Fig. 1); the area was delineated in the field with pink flagging. AVISCO staff also provided some on-site guidance and clarification on boundaries of the proposed roadway. Through much of its length the proposed roadway follows the course of or parallels an existing gravel road between the Melton Valley Storage Tank Facility and SR 95; however, there are several areas where the new roadway diverges into mature forest.

Because the survey was conducted in winter and the stems, flowers, and leaves of most herbaceous plants are generally not persistent above ground, this survey focused primarily on woody vegetation, habitats observed in the proposed roadway corridor, and published information about rare plant species on the ORR. Our approach was to use knowledge of the rare plant species known to occur on the ORR and survey for habitat that could support these species. We also consulted with other botanists who have conducted rare species surveys in some parts of the project area in the past several years. A survey during the growing season would better enable us to identify, report, comment on, and make recommendations on avoiding disturbance to sensitive species.

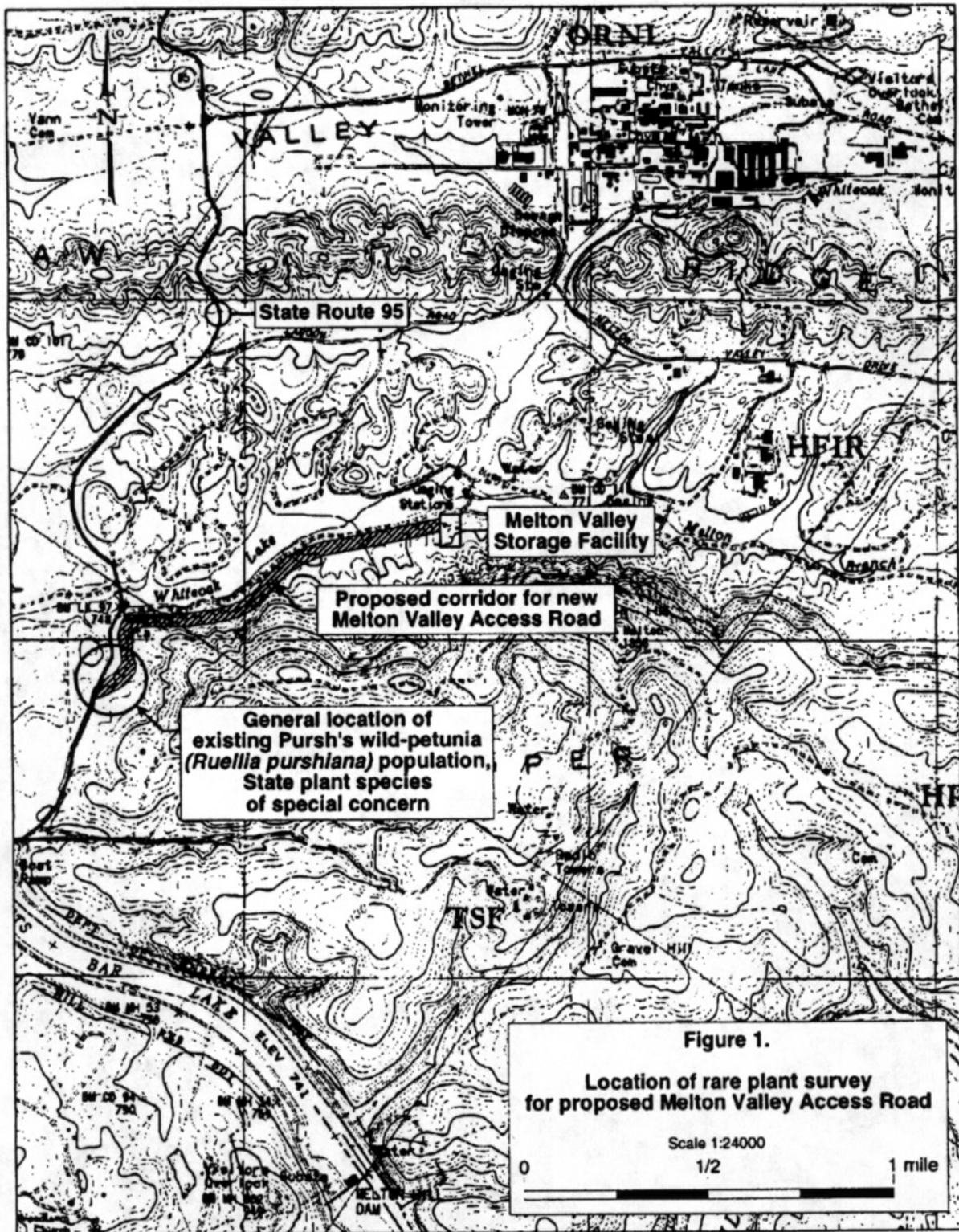
White Oak Lake borders the existing gravel road to the north for about half its length. Most of the area within 50-ft to the south of the existing roadway is pine forest and has many fallen trees, which looked to be the result of windfall. Areas further than 50-ft south of the road were mixed pine-cedar-hardwood forest. Steep slopes prevail through much of the area, especially in the western third of the proposed road corridor. The upper portions of the slopes support a mature forest of chestnut oak, northern red oak and tulip tree. Several deep coves support a mature forest with buckeye and tulip tree dominating. Limestone rock outcrops were present from the ridge crest down to the existing gravel road. Several streams with running water were also present. Only one of these is depicted as a blue line stream on the S-16A map of the ORR.

The areas most likely to contain rare herbaceous species are the mixed juniper-hardwood forest near Hwy 95 and the forested slopes above the existing gravel road (see Fig. 1). A state plant species of special concern, Pursh's wild-petunia grows along the roadway of State Route 95 in the area of the intersection of the proposed access road. It likely occurs at the edge of the woods in that area also. A precise estimate of the population of this species of *Ruellia* present at this or other sites on the ORR is not available. A maximum area of about 1 acre of potential *Ruellia* habitat would be affected by the proposed road in its current alignment.



Other rare plant species known to occur on the ORR that could inhabit the forested slopes on the southern part of the proposed road corridor include ginseng, (*Panax quinquefolium*), goldenseal (*Hydrastis canadensis*), pink lady slipper (*Cypripedium acaule*), and whorled mountain-mint (*Pycnanthemum verticillatum*). Ginseng, goldenseal, and pink lady slipper are listed as state endangered species because of commercial exploitation. The whorled mountain-mint is listed as state endangered and possibly extirpated (the plant has not been seen in Tennessee for the past 20 years and may no longer occur in Tennessee). None of these species has federal status.

On Wednesday, February 10, 1999, scientists from Science Applications International Corporation (SAIC) performed a rare plant species survey for the proposed Melton Valley Access Road, which runs from Highway 95 to the Melton Valley Storage Tank Facility on the Oak Ridge Reservation (ORR). During the survey no federal or state listed endangered or threatened plant species were observed in the proposed roadway corridor. A state plant species of special concern, Pursh's wild-petunia has been observed in the extreme western end of the proposed roadway in the area around the proposed intersection of the proposed Melton Valley Access Road with State Route (SR) 95. This population was first identified, described, and documented by Dr. Larry Pounds, a botanist working for the Oak Ridge National Laboratory (ORNL) Environmental Sciences Division. The area where the plant was found is known as ORNL Natural Area 56. The proposed Melton Valley Access Road would impact approximately one acre of potential Pursh's wild-petunia habitat.



**Additional Resources and Contacts:**

The Pursh's wild-petunia was first identified, described, and documented by Dr. Larry Pounds, a botanist working for the ORNL Environmental Sciences Division. Dr. Pounds can be reached at 483-8635.

For more information about Pursh's wild-petunia, natural areas, and other rare plants at ORNL, please contact Ms. Pat Parr at 576-8123. Ms. Parr is the ORNL Area Manager.

For more information about the regulatory status of plant species of special concern, please contact Ms. Andrea Shea at (615) 532-0439. Ms. Shea is the Endangered Species Program Manager with the Division of Natural Heritage of the Tennessee Department of Environment and Conservation in Nashville.

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